IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Richmond Division

THE TRUSTEES OF COLUMBIA
UNIVERSITY IN THE CITY OF
NEW YORK,

        Plaintiff,

v.   **Civil Action No. 3:13cv808**

SYMANTEC CORPORATION,

        Defendant.

MEMORANDUM OPINION
"The Markman Opinion"

This matter comes before the Court on four motions:

1.   Defendant Symantec Corporation's ("Symantec") Motion to Permit Additional Claim Construction Proceedings (the "Markman Motion"),[1] (ECF No. 204);

2.   Symantec's Motion to File Documents Under Seal ("Symantec's Motion to Seal"),[2] (ECF No. 206); and,

3.   Plaintiff the Trustees of Columbia University in the City of New York's ("Columbia")[3] Motion to File Exhibits Under Seal ("Columbia's Motion to Seal"),[4] (ECF No. 214).

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[1] Columbia responded to the Markman Motion, (ECF No. 213), and later that same day filed a "corrected version" of its opposition, (ECF No. 221-1). Symantec replied. (ECF No. 222.)

[2] Columbia did not respond to Symantec's Motion to Seal and the time to do so has expired.

[3] The Court will refer to Columbia and Symantec jointly as the Parties.

[4] Symantec responded in support of Columbia's Motion to Seal. (ECF No. 225.) Pursuant to the protective order governing this case, (ECF No. 66), Symantec's Motion to Seal and Columbia's Motion to Seal each seek to seal exhibits that feature Symantec's confidential business information. For good cause shown, the Court will grant both Symantec's Motion to Seal, (ECF No. 206), and Columbia's Motion to Seal, (ECF No. 214).

The Court heard oral argument on the Markman Motion and the matter is ripe for disposition. The Court exercises jurisdiction pursuant to 28 U.S.C. § 1331.[5] For the reasons that follow, the Court will grant the Markman Motion as to "anomalous" as to the phrase "model of function calls for the at least a [part/portion] of the program."[6] For ease of reference, the Court will occasionally refer to this opinion as the "Markman Opinion," and the companion memorandum opinion and order as the "*Inter Partes Review* Opinion."

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[5] "The district courts shall have original jurisdiction of all civil actions arising under the Constitution, laws, or treaties of the United States." 28 U.S.C. § 1331.

[6] The Court will not consider any additional claim construction arguments. Based on the extended litigation of this matter and the Court's decisions in this Markman Opinion and the *Inter Partes Review* Opinion, which have narrowed the issues before the Court, the Court will order the Parties to exchange updated documents reflecting the current scope of the litigation. The Court cautions the Parties that these updated documents shall not include any new claims or prior art.

Specifically, no later than July 16, 2019, Columbia shall serve on Symantec an updated claim chart, to be comprised of the original information as defined in paragraph 3 of the Court's March 17, 2014 Order minus the now-excluded claims. (*See* ECF No. 56.) By that same date, Symantec shall serve on Columbia an updated list of the prior art on which it relies, to be comprised of that prior art originally asserted under paragraph 5 of the Court's March 17, 2014 Order minus the now-excluded prior art. (*See id.*)

No later than July 30, 2019, Symantec shall serve on Columbia a similarly updated claim chart as defined in paragraph 4 of the Court's March 17, 2014 Order. (*See id.*) This updated claim chart shall include the original information exchanged minus the now-excluded information. Also, no later than July 30, 2019, Columbia shall serve on Symantec a similarly updated prior art statement as defined in paragraph 6 of the Court's March 17, 2014 Order. (*See id.*) This updated prior art statement shall include the information originally exchanged minus responses to the now-excluded prior art. (*See id.*)

No later than July 31, 2019, the Parties shall file a joint statement with the Court confirming their compliance with the specified deadlines.

I. Procedural Background

A. Litigation History in This Court

On December 24, 2013, Columbia filed an Amended Complaint alleging that Symantec's

Norton Antivirus software infringed on six patents[7] owned by Columbia, only two of which

remain at issue. (ECF No. 12.) Columbia also raised five claims for relief arising out of one

patent owned by Symantec, which Columbia believes Symantec unlawfully obtained.[8] (ECF No.

12.) On January 14, 2014, Symantec answered.[9] (ECF No. 20.) In its Answer, Symantec

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[7] These six patents included: (1) Patent No. 7,487,544 (the "544 Patent"); (2) Patent No. 7,979,907 (the "907 Patent"); (3) Patent No. 7,448,084 (the "084 Patent"); (4) Patent No. 7,913,306 (the "306 Patent"); (5) Patent No. 8,074,115 (the "115 Patent"); (6) Patent No. 8,601,322 (the "322 Patent"). (*See* Am. Compl. ¶ 1.) The United States Court of Appeals for the Federal Circuit described the patents as follows:

> The patents can be grouped into three families. The []544 and []907 patents share the same specification and relate to detecting malicious email attachments. The []084 and []306 patents share the same specification, and relate to a method for detecting intrusions in the operation of a computer system. The []115 and the []322 patents also share a specification and relate to detecting anomalous program executions.

Trs. of Columbia Univ. in the City of New York v. Symantec Corp., 811 F.3d 1359, 1362 (Fed. Cir. 2016). Of these six patents, only the 115 Patent and the 322 Patent remain before the Court.

[8] These claims relate to Patent No. 8,549,643 (the "643 Patent"), which belongs to Symantec. The Court has stayed Columbia's challenges to the 643 Patent.

[9] On that same day, Symantec moved to dismiss Columbia's seventh, eighth, and ninth claims for relief (the "Motion to Dismiss"). (ECF No. 18.) These claims allege causes of action for fraudulent concealment, unjust enrichment, and conversion pertaining to the 643 Patent. (*Id.*) On April 2, 2014, the Court denied the Motion to Dismiss. (ECF No. 68.) Columbia's seventh, eighth, and ninth claims for relief remain at issue in this case, but the Court need not address them for the purposes of the instant motion.

asserted several defenses, including that it did not infringe on Columbia's patents and that the patent claims in Columbia's patents do not constitute valid patent claims.[10]

On February 27, 2014, the Court held a pretrial conference. On March 5, 2014, the Court issued a scheduling and pretrial order, which scheduled the Markman hearing[11] for September 4, 2014, and the trial for January 5–16, 2015. (ECF No. 54.) The scheduling and pretrial order also set the claim construction briefing schedule. (*Id.*) The scheduling and pretrial order warned that "[c]ounsel are advised that all time limits and restrictions outlined herein shall be strictly observed." (Scheduling & Pretrial Order ¶ 26 (underline in original).) On March 17, 2014, following a joint request from Columbia and Symantec, the Court entered an order setting the deadlines to file infringement and invalidity contentions. (ECF No. 56.) In that order, the Court ordered Symantec to provide Columbia "a list of *all* prior art on which it relies and a complete and detailed explanation of what it alleges the prior art shows and how that prior art invalidates the claims asserted by plaintiff." (Mar. 17, 2014 Order ¶ 5 (emphasis added), ECF No. 56.) On May 12, 2014, Symantec served its invalidity contentions on Columbia and identified dozens of grounds of invalidity including patents, articles, and systems.

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[10] Based on the Court's decision in the *Inter Partes Review* Opinion, Symantec may no longer support its invalidity affirmative defense with the dozens of grounds of invalidity identified in its invalidity contentions, but that it chose not to assert in its petitions for *inter partes review* before the PTAB. Symantec asserts other defenses, which remain before the Court: limitation on damages and recovery, dedication to the public, no entitlement to an injunction or other equitable relief, unavailability of enhanced damages, unavailability of unjust enrichment, unavailability of conversion, and preemption by federal patent law.

[11] "Patent law employs a unique procedure, known as claim construction, where the Court determines 'the meaning and scope' of a disputed patent before addressing issues of invalidity, infringement or other legal issues." *Charleston Med. Therapeutics, Inc. v. Astrazeneca Pharm. LP*, No. 2:13-cv-2078-RMG, 2016 WL 7030743, at *3 (D.S.C. Feb. 19, 2016) (citing *O2 Micro Int'l Ltd. V. Beyond Innovation Tech Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008)). During a hearing, known as the Markman hearing, the claim construction process "requires the Court to rigorously examine any disputed patent claim terms and to determine as a matter of law the proper construction of those terms." *Id.*

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After that, both Columbia and Symantec timely filed their claim construction briefs with supporting documents. (ECF Nos. 106, 107.) The Parties each submitted their responses to the initial claim construction briefs. (ECF Nos. 109, 110.)

Approximately one week later, the Court held the Markman hearing. (ECF No. 121.) Following that hearing, the Court issued a Claim Construction Order (the "Claim Construction Order"), construing nine terms. (Claim Construction Order 1–2, ECF No. 123.) As to the 115 and 322 family of patents (still at issue in the litigation) the Court construed three terms: "anomalous," "emulator," and "application community."[12] (*Id.* 2.) Relevant to this Markman Opinion, the Court construed "anomalous" as "[d]eviation/deviating from a model of typical, attack-free computer system usage." (*Id.*)

Two days after the Court issued the Claim Construction Order, Columbia filed a Motion for Clarification of Claim Construction Order (the "Motion for Clarification"). (ECF No. 128.) In relevant part, Columbia asked that the Court clarify the meaning of the word "anomalous" as used in the 115 Patent and the 322 Patent.[13] (Mem. Supp. Mot. Clarification 2–3, ECF No. 129.) On October 23, 2014, following briefing from both Parties, the Court issued its Clarified Claim Construction Order (the "Clarified Claim Construction Order"). (ECF No. 146.) In the Clarified Claim Construction Order, the Court, looking to claim 1 of the 084 Patent for guidance, found

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[12] The six additional terms construed by the Court, three terms per family, pertained to the 544 and 907 family of patents and the 084 and 306 family of patents. (Claim Construction Order 1–2.) The 544 Patent, 907 Patent, 084 Patent, and 306 Patent no longer stand before the Court.

[13] Columbia sought "clarification on whether the Court intended its construction to mean that the claimed model may be generated with normal data and also attack data or whether the model must be generated with *only* 'typical, attack free' data." (Clarified Claim Construction Order 1, ECF No. 146.) Symantec opposed the Motion for Clarification, stating that "[i]t is not a motion for clarification at all; rather, it is a request by Columbia for this Court to reconsider its decision." (Resp. Mot. Clarification 2, ECF No. 133.)

that the model to which anomalous referred "is generated with only attack-free data." (Clarified Claim Construction Order 2, ECF No. 146.)

Ten days later, based on the Court's 2014 Clarified Claim Construction Order, Columbia and Symantec jointly moved the Court to issue final judgment pursuant to Federal Rule of Civil Procedure 54(b)[14] as to Columbia's first through sixth claims for relief and staying the case as to its seventh through eleventh claims. (Jt. Mot. Entry Final J. 1–2, ECF No. 148.) The Parties specifically asked the Court to enter "judgment of non-infringement on all asserted claims and [to] find[] . . . invalidity for indefiniteness of claims 1 and 16 of the []544 [P]atent." *Trs. of Columbia Univ.*, 811 F.3d at 1362. The next day, November 4, 2014, the Court entered the partial final judgment requested by Columbia and Symantec[15] (the "Partial Final Judgment Order"). (ECF No. 150).

Prior to entry of the Partial Final Judgment Order, neither Columbia nor Symantec asked the Court to define "model of function calls for the at least a [part/portion] of the program." Symantec concedes that it knew of the Parties' dispute as to the proper definition of this term prior to the entry of the Partial Final Judgment Order, but claims that because the Partial Final Judgment Order seemingly ended the case in Symantec's favor, it would have been "ludicrous" for it to raise the issue in the days leading up to Court's entry of the Partial Final Judgment Order. (Reply 12, ECF No. 222.)

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[14] Federal Rule of Civil Procedure 54(b) provides: "When an action presents more than one claim for relief . . . the court may direct entry of a final judgment as to one or more, but fewer than all, claims . . . only if the court expressly determines that there is no just reason for delay." Fed. R. Civ. P. 54(b).

[15] The Parties requested that the Court enter partial final judgment "to allow Columbia to take an immediate appeal of" the 2014 Claim Construction Order and the 2014 Clarified Claim Construction Order. (Mem. Supp. Summ. J. Mot. 8, ECF No. 199.)

B.   First Appeal to the Federal Circuit: Claim Construction Orders

Approximately one week later, having seemingly lost its case in this Court, Columbia

filed its Notice of Appeal to the Federal Circuit and appealed the Court's November 4, 2014

Partial Final Judgment Order, (ECF No. 150), the Court's original Claim Construction Order,

(ECF No. 123), and the Court's 2014 Clarified Claim Construction Order, (ECF No. 146).

(Notice Appeal 1, ECF No. 152.) In a 2016 opinion, the Federal Circuit affirmed in part, and

reversed and remanded in part, the Court's grant of final judgment and claim construction orders.

See Trs. of Columbia Univ., 811 F.3d at 1371. Specifically, the Federal Circuit upheld the

judgment of non-infringement as to the 544, 907, 084, and 306 patents. *Id.* at 1366–67, 1369.

With regard to the 115 and 322 patents, the Federal Circuit "reversed the district court's

construction of 'anomalous,'" and the Court's stipulated judgment as to the 115 and 322 patents.

The Federal Circuit then remanded for proceedings consistent with its opinion. *Id.* at 1370–71.

This part of the appellate process left only Columbia's causes of action as to the 115 and

322 patents pending in this district court. Columbia's seventh through eleventh claims for relief

that concern Symantec's 643 Patent, stayed by the Court in 2014, also remain pending before the

Court.

C.   The *Inter Partes Review* Proceedings

On December 5, 2014, after the Court issued its Partial Final Judgment Order and while

the Federal Circuit considered Columbia's appeal from that order, Symantec, who prevailed

below, filed petitions with the Patent Trial and Appeal Board ("PTAB") of the United States

Patent and Trademark Office ("PTO") requesting, in relevant part, *inter partes review* of the 115

and 322 patents at issue in the litigation. (Notice Pets. *Inter Partes Review* 1, ECF No. 158.)

Thus, two avenues of additional proceedings—one started by each party—commenced in parallel

actions at approximately the same time. The Federal Circuit's *inter partes review* decision,

however, took two years longer than its order discussing this Court's 2014 Claim Construction

Orders. *Compare Trs. of Columbia Univ. in the City of New York v. Symantec Corp.*, 811 F.3d

1359 (Fed. Cir. 2016), *with Trs. of Columbia Univ. in the City of New York v. Symantec Corp.*,

714 Fed. App'x 1021 (Fed. Cir. 2018).

On July 1, 2015, PTAB construed the terms in the patent claims pursuant to their

"broadest reasonable construction"[16] and fully instituted *inter partes review* on all of Symantec's

asserted grounds of invalidity.[17] (*Id.*) On June 30, 2016, the PTAB issued separate final written

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[16] When a district court construes a patent term, it must consider "three primary sources: the claims, the specification, and the prosecution history." *Contentguard Holdings, Inc. v. Amazon.com, Inc.*, Nos. 2:13cv1112, 2:14cv61, 2015 WL 8073722, at *3 (E.D. Tex. Mar. 20, 2015) (citing *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996)). After considering these sources, the district court assigns the term "[t]he construction that stays true to the claim language and most naturally aligns with the patent's description of the invention." *Id.* at *4 (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc)). In contrast, when conducting an *inter partes review*, the PTAB construes terms pursuant to their "broadest reasonable construction," a different standard than the one applied in the district court. *See SkyHawke Techs., LLC v. Deca Int'l Corp.*, 828 F.3d 1373, 1376 (Fed. Cir. 2016).
In its Final Written Decision regarding the 115 Patent, PTAB stated that "[i]n [the] Decision to Institute, we determined the broadest reasonable construction of anomalous is: 'deviation/deviating from a model of typical computer system usage.'" *Symantec Corp. v. The Trs. of Columbia Univ. in the City of New York*, No. IPR2015-00375, 6 (P.T.A.B. June 30, 2016) (the 115 Patent decision) (ECF No. 180-1). Further, PTAB stated "[w]e specifically recognized that the [s]pecification contemplates that 'attack data' may be used to build the model used as a baseline for comparison to identify anomalous behavior." *Id.* In its Final Written Decision regarding the 322 Patent, PTAB provided the same definition. *Symantec Corp. v. The Trs. of Columbia Univ. in the City of New York*, No. IPR2015-00377, 5 (P.T.A.B. June 30, 2016) (the 322 Patent decision) (ECF No. 180-2).

[17] Today's *Inter Partes Review* Opinion recounts this process in detail. Of note, despite having raised dozens of prior art references that allegedly rendered the 115 Patent invalid, Symantec chose to assert only three grounds of invalidity when it pursued *inter partes review* before the PTAB. Similarly, as to the 322 Patent, Symantec plucked only two grounds of invalidity—again out of dozens identified while before the District Court—to pursue before the PTAB in *inter partes review*.
In the *Inter Partes Review* Opinion, the Court concludes that because Symantec knew of these additional grounds of invalidity, and chose not to assert them in its *inter partes review*

decisions as to the 115 Patent and the 322 Patent. In these decisions, PTAB found that Symantec proved that certain claims of the 115 Patent and the 322 Patent could not be patented but failed to meet that standard as to other patent claims.[18]

D. The Second Federal Circuit Appeal: *Inter Partes Review* Appeal

On August 5, 2016, Columbia and Symantec jointly requested a one-year stay in the case pending before this Court to allow the Parties to appeal to the Federal Circuit the PTAB's *inter partes review* decisions concerning the 115 and 322 patents. (ECF No. 167.) On appeal, in an assessment separate from its 2016 decision regarding this Court's Claim Construction Orders, the Federal Circuit, in 2018, affirmed PTAB's decisions as to the validity of the patent claims in the 115 and 322 patents in all respects. *Trs. of Columbia Univ. in the City of New York v. Symantec Corp.*, 714 F. App'x 1021, 1022 (Fed. Cir. 2018).[19]

E. The Current Posture of the Case

Following both the appeal from this Court's prior orders and the appeal from the PTAB's *inter partes review* decisions, only three patents remain at issue: the 115 Patent, the 322 Patent,

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petitions, 35 U.S.C. § 315(e)(2) estops Symantec from supporting its invalidity affirmative defense with them. The Court assumes familiarity with the *Inter Partes Review* Opinion.

[18] Specifically, PTAB found twelve claims of the 115 Patent patentable: claims 2, 9, 10, 12, 19, 20, 23, 30, 31, 33, 40, and 41. (Mem. Supp. Summ. J. Mot. 9.) It also found six claims of the 322 Patent patentable: claims 2, 8, 11, 17, 25, and 27. (*Id.*) PTAB concluded that Symantec succeeded in showing that Columbia could not lawfully patent the remaining thirty claims in the 115 Patent and the remaining twenty-one claims in the 322 Patent in light of the asserted prior art. Neither Columbia nor Symantec disputes that the PTAB's decisions as to the patentability of the 115 Patent and the 322 Patent narrowed the claim terms before this Court.

[19] The Federal Circuit addressed the PTAB's *inter partes review* decisions as to the 115 Patent and the 322 Patent in a single opinion. *See Trs. of Columbia Univ.*, 714 F. App'x at 1022.

and the 643 Patent.[20] Only those twelve patent claims in the 115 Patent and six patent claims in the 322 Patent that the PTAB found valid remain.

After the issuance of the Federal Circuit's 2018 mandate regarding the PTAB's *inter partes review* of the 115 and 322 patents, Columbia filed an unopposed Motion to Reopen Proceedings (the "Motion to Reopen"), (ECF No. 179), which the Court granted, (ECF No. 181). On October 4, 2018, both Parties attended a pretrial conference. Following that pretrial conference, Symantec filed the Markman Motion. Columbia responded in opposition, and Symantec replied.

II. Applicable Law: Principles of Claim Construction in a Patent Case

The interpretation of words in a patent claim generally presents a question of law for the judge, not a question of fact for the jury. *See generally Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996). The Federal Circuit has concluded that "[w]hen the parties present a fundamental dispute regarding the scope of a claim term, it is the court's duty to resolve it." *O2 Micro*, 521 F.3d at 1362. This general rule does not, however, override a district court's ability to exercise its case-management authority. Rather, the Federal Circuit "generally support[s] a district court's case-management authority to set a schedule for claim construction that requires parties to take positions [by] various dates and holds the parties to these positions." *Wi-LAN USA, Inc. v. Apple, Inc.*, 830 F.3d 1374, 1385 (Fed. Cir. 2016). The Federal Circuit has affirmed

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[20] Neither appeal concerned the 643 Patent because in 2014 this Court stayed the case as to Columbia's claims concerning this patent prior to entering partial final judgment. Each of Columbia's original seventh through eleventh causes of action, which pertain to the 643 Patent, remain.

the district court's refusal to allow a party to engage in claim construction arguments following the close of claim construction proceedings.[21] *Id.*

Relatedly, the Federal Circuit has recognized that a district court need not construe every word in a patent. *See GPNE Corp. v. Apple Inc.*, 830 F.3d 1365, 1372–73 (Fed. Cir. 2016) (recognizing that to require the district court to construe all terms "could proceed ad infinitum, as every word—whether a claim term itself, or the words a court uses to construe a claim term—is susceptible to further definition, elucidation, and explanation." (quoting *Eon Corp. IP Holdings v. Silver Spring Networks*, 815 F.3d 1314, 1318 (Fed. Cir. 2016))); *O2 Micro*, 521 F.3d at 1360 (recognizing that "a district court is not obligated to construe terms with ordinary meanings, lest trial courts be inundated with requests to parse the meaning of every word in the asserted claims").

III. Analysis

Mindful of the principles of claim construction, the Court turns to address the question before it: whether the Court need hold an additional Markman hearing. In the Markman Motion, Symantec requests that the Court allow an additional Markman hearing to determine the proper definition of "anomalous" and the phrase "model of function calls for the at least a [part/portion] of the program." Because the Federal Circuit vacated this Court's decision as to the 115 Patent

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[21] The Federal Circuit has explained that it "found no abuse of discretion in a district court's denial of a party's motion to amend its infringement contentions based on its finding that the party had not been diligent in advancing this new theory." *Wi-LAN USA*, 830 F.3d at 1385 (citing *O2 Micro Int'l Ltd. v. Monolithic Power Sys., Inc.*, 467 F.3d 1355, 1367 (Fed. Cir. 2006)). Additionally, the Federal Circuit has found that "[w]hen a party took a position in claim construction, won on that position, and then attempted to change that position shortly before trial, [it] upheld the district court's determination that, because no good cause supported this change in position, the party must maintain its original position." *Id.* (citing *Nuance Commc'ns, Inc. v. ABYY USA Software House, Inc.*, 813 F.3d 1368, 1373 (Fed. Cir. 2016)). Similarly, "[w]hen a party stipulated to a particular construction and then sought a jury instruction inconsistent with that stipulation, [the Federal Circuit] affirmed the district court's determination that it could not do so." *Id.* (citing *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 805 F.3d 1368, 1376 (Fed. Cir. 2015)).

and 322 Patent and did not provide a crystal clear mandate[22] regarding the proper definition of

"anomalous," the Court will conduct an additional Markman hearing as to that term. Although

Symantec concedes that it knew the Parties disagreed regarding the proper definition of "model

of function calls for the at least a [part/portion] of the program" and Symantec chose not to

raise—or even to notify—the District Court about the dispute prior to appeal, because the Court

will hold a Markman hearing as to "anomalous," the Court will, reluctantly, also construe this

second phrase.

A. Because "Anomalous" Is a Critical Disputed Term, the Court Will Construe the Term Before the Case Proceeds to Trial

"Anomalous," a term appearing in all remaining claims in this case, constitutes a critical

disputed term, the construction of which will likely have a drastic impact on the outcome of this

litigation.[23] This Court previously construed "anomalous" in both its October 7, 2014 Claim

Construction Order and its October 23, 2014 Clarified Claim Construction Order, but in 2016 the

Federal Circuit "reverse[d]" this Court's construction of "anomalous" on appeal. *Trs. of*

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[22] All references to the Federal Circuit's mandate from this point forward are to the 2016 mandate issued in *The Trustees of Columbia University in the City of New York v. Symantec Corporation*, 811 F.3d 1359.

[23] As shown by the Parties' filings, at all times throughout this litigation they agree that this term requires construction prior to presenting this case to a jury. First, in their initial 2014 Claim Construction Briefs, both Columbia and Symantec requested that the Court construe "anomalous" as used in the 115 Patent and the 322 Patent. (*See* Columbia's Opening Claim Construction Brief 25, ECF No. 106; Symantec's Opening Claim Construction Brief 27, ECF No. 107.) Based on this record, prior to appeal, the Parties believed that the term "anomalous" existed as a disputed term that the Court needed to define.

Similarly, in their filings pertaining to the present Markman Motion, the Parties vigorously dispute whether the Federal Circuit vacated this Court's definition of "anomalous" or simply vacated the Court's reliance on claim 1 of the 084 Patent to determine that "the model is generated with only attack-free data." (Clarified Claim Construction Order 2.) Although the Parties disagree about whether the Court must hold an additional Markman hearing, they agree that "anomalous" requires some type of construction by the Court and disagree only as to how the Court should proceed to do so.

Columbia Univ., 811 F.3d at 1370–71. Because a construction of this critical term no longer

exists, the Court will hold an additional Markman hearing to determine its meaning.

In the Court's initial Claim Construction Order, the Court defined "anomalous" in the

115 Patent and the 322 Patent as meaning "[d]eviation/deviating from a model of typical, attack-

free computer system usage." (Claim Construction Order 2.) In its Clarified Claim Construction

Order, the Court looked to claim 1 of the 084 Patent for guidance and concluded that the model

to which anomalous referred "is generated with only attack-free data." (Clarified Claim

Construction Order 2.) The Court then entered the Partial Final Judgment Order "to allow

Columbia to take an immediate appeal of" the Claim Construction Order and the Clarified Claim

Construction Order. (Mem. Supp. Summ. J. Mot. 8, ECF No. 199.)

In considering the definition of "anomalous" the Federal Circuit noted that "there is no

reason why the construction of claim terms in the []115 [Patent] and []322 [P]atent[] should be

the same as the []084 [Patent]." *Trs. of Columbia Univ.*, 811 F.3d at 1369. The Federal Circuit

then looked to the language of the claims stating that "[t]he claims themselves show that the

model can be built with both attack-free and attack data." *Id.* at 1370. The Federal Circuit also

considered "[t]he prosecution histories of the []115 and []322 patents," concluding that they too

"support Columbia's assertion that the model here can be built with attack-free and attack data."

Id. The Federal Circuit "conclude[d] that the district court erred in limiting the term 'anomalous'

to mean that the model here must be built only using attack-free data." *Id.*

Although this analysis provides compelling guidance, the Federal Circuit stopped short of

providing a legally binding definition of "anomalous" as using a model built on both attack-free

and attack data. Specifically, the Federal Circuit's mandate to this Court stated: "we reverse the

stipulated judgment of non-infringement of the asserted claims of the []115 and []322 patents

because it was based on an incorrect claim construction, and remand for further proceedings consistent with this opinion."[24] *Id.* at 1371.

While the Court sees that the Federal Circuit strongly suggested that the term "anomalous" includes a model built on both attack and attack-free data, it must find that the mandate does not expressly instruct this Court to use this definition. *See id.* at 1371. Given the importance of the term "anomalous" to these proceedings, as shown by the Parties' continued dispute concerning its proper meaning and its appearance "in all [r]emaining [c]laims in this case," (Reply 12), the Court declines to speculate as to the Federal Circuit's preferred construction of "anomalous" and instead interprets the Federal Circuit's mandate as merely

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[24] Columbia contends that the law-of-the-case doctrine mandates that the Court's initial Claim Construction Order, which defined "anomalous" as "[d]eviation/deviating from a model of typical, attack-free computer system usage," should control this case moving forward because the Federal Circuit did not reverse that construction. (Resp. 2; Claim Construction Order 2.) Columbia seeks to stretch the doctrine too far. The law-of-the-case doctrine "requires lower courts to follow the rulings of appellate courts on issues that have actually been decided by appellate courts." *Epcon Gas Sys., Inc. v. Bauer Compressors, Inc.*, 90 Fed. App'x. 540, 541 (Fed. Cir. 2004) (citation omitted). "Claim constructions previously determined on appeal to [the Federal Circuit] . . . are law of the case on remand." *Id.* (citing *Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp.*, 149 F.3d 1309, 1315 (Fed. Cir. 1998). In describing the mandate rule, "encompassed by the broader law-of-the-case doctrine," the Federal Circuit stated that on remand, the actions of the court "must not be inconsistent with the letter or spirit of the mandate." *Banks v. United States*, 741 F.3d 1268, 1279 (Fed. Cir. 2014).

In *Epcon Gas*, the district court construed several patent terms and granted summary judgment of non-infringement. *Epcon Gas*, 90 Fed. App'x at 540–41. On appeal, the Federal Circuit affirmed the district court's construction of "substantially below," but reversed the district court's construction of other terms and remanded the case. *Id.* at 541. On remand, the district court "revised its claim construction of 'substantially below' and again granted summary judgment of non-infringement." *Id.* During the second appeal, the Federal Circuit found that "[t]he district court's 'clarification' of its prior claim construction that we previously affirmed on appeal violated law of the case." *Id.* at 542.

This case differs from *Epcon Gas.* Here, the Federal Circuit did not clearly mandate a specific definition of "anomalous." Rather, the Federal Circuit found that it was error for the Court to define "anomalous" with reference to claim 1 of the 084 Patent and to constrain the definition to only "attack-free data." *Trs. of Columbia Univ.*, 811 F.3d at 1370. The Federal Circuit did not affirm the Court's original definition, which included the phrase "typical, attack-free computer system usage." (Claim Construction Order 2.) For these reasons, the law of the case doctrine does not preclude the Court from holding an additional Markman hearing to determine the proper construction of "anomalous."

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vacating the Court's prior definition of "anomalous." Mindful of its duty to resolve a

"fundamental dispute regarding the scope of a claim term," *O2 Micro*, 521 F.3d at 1362, the

Court will allow the Parties to submit proper briefing as to the correct construction of

"anomalous."[25]

B. The Court Will Define "Model of Function Calls for the At Least a [Part/Portion] of the Program" at the Markman Hearing

In addition to holding an additional Markman hearing to determine the proper scope of

"anomalous," Symantec contends that the Court must allow it to raise arguments, for the first

time, regarding the proper scope of the phrase "model of function calls for the at least a

[part/portion] of the program." (Markman Mot. 1.) Symantec asserts that the Court must

construe this additional term because Symantec raised the dispute as soon as it was practicable to

do so and it has not waived the argument by waiting to raise it until after appeal and after *inter*

partes review. (Markman Mot. 7–11.) Columbia counters that Symantec waived this argument

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[25] Columbia also argues that the definition of "anomalous" set forth by PTAB in its Final Written Decisions on the 115 Patent and the 322 Patent shows that the Court need not further construe "anomalous." As to both patents, the PTAB found that "the broadest reasonable construction of anomalous is: 'deviation/deviating from a model of typical computer system usage.'" *Symantec Corp.*, No. IPR2015-00375 at 6 (the 115 Patent decision) (ECF No. 180-1); *Symantec Corp.*, No. IPR2015-00377 at 5 (the 322 Patent decision) (ECF No. 180-2). It stated "[w]e specifically recognized that the [s]pecification contemplates that 'attack data' may be used to build the model used as a baseline for comparison to identify anomalous behavior." *Id.*

Columbia contends that *inter partes review* "decisions tend to cement this construction as the appropriate 'law of the case.'" (Resp. 15.) When a court must construe a term that has previously been construed by PTAB, "PTAB's construction . . . is entitled to 'reasoned deference.'" *Contentguard Holdings, Inc.*, 2015 WL 8073722 at *11 (citing *Maurice Mitchell Innovations, L.P. v. Intel Corp.*, No 2:04-CV-450, 2006 WL 1751779, at *4 (E.D. Tex. June 21, 2006)). The PTAB applies a different standard of claim construction than that standard which the district court must apply, so the Court may construe a term differently than the PTAB. *See id.* at *3–4. Because Columbia's argument goes to the proper construction of "anomalous," an argument best presented in a claim construction brief, it does not persuade with regard to the Markman Motion. Columbia and Symantec remain free to argue the proper scope of "anomalous" in their claim construction briefs submitted for the additional Markman hearing.

by failing to act diligently in raising it before the Court.[26] (Resp. 16.) Because the Court has decided that it must hold an additional Markman hearing to determine the proper scope of the term "anomalous," it will also allow the Parties to raise argument regarding the proper scope of this phrase. However, the Court warns the Parties that it will exercise its case-management authority to exclude any additional claim construction arguments, or any other issues that could have been raised before this district court prior to the entry of the Partial Final Judgment Order.[27]

Although the Court has a duty to resolve "fundamental dispute[s] regarding the scope of a claim term," *O2 Micro*, 521 F.3d at 1362, the Federal Circuit has upheld a district court's exercise of its case management authority to preclude a party from raising a claim construction argument after the deadline to do so has passed, *see Wi-LAN USA, Inc.*, 830 F.3d at 1385. To that end, several courts[28] have precluded parties from raising new claim construction arguments

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[26] Columbia contends that Symantec must show good cause to modify the previously entered scheduling order in this case so as to seek construction of the phrase "model of function calls for the at least a [part/portion] of the program." (Resp. 16, 18.) Columbia relies on a single Arizona district court case, *see Renfrow v. BDP Innovative Chems. Co.*, No: CV-14-01183-PHX-GMS, 2015 WL 13037046, at *2 (D. Ariz. Nov. 16, 2015), and Federal Rule of Civil Procedure 16(b)(4): "[a] schedule may be modified only for good cause and with the judge's consent." Fed. R. Civ. P. 16(b)(4). Symantec counters that courts have not imposed any such good cause requirement for parties to seek additional claim construction. (Reply 7.)

The Court need not consider that argument at length because it will invoke its case management authority to address Symantec's request for a Markman hearing on the phrase "model of function calls for the at least a [part/portion] of the program."

[27] As the Court ordered *supra* note 6, the Parties shall exchange updated documents reflecting the current scope of the litigation.

[28] For instance, in *Donaldson Co., Inc. v. Baldwin Filters, Inc.*, after the defendant attempted to raise a claim construction argument for the first time at the Markman hearing, the United States District Court for the District of Minnesota stated that "a claim construction hearing is not an opportunity for a party to revisit an earlier tactical decision and make, for the first time, arguments that the party should have made much earlier." No. 09-cv-1049 (PJS/AJB), 2011 WL 2183179, at *9 (D. Minn. June 6, 2011). Similarly, after two trials with the same parties and a prior warning, the United States District Court for the Northern District of California found that a party's request to conduct additional claim construction was untimely when the party failed to raise a claim construction issue during the claim construction phase of

following a party's "tactical" decision not to raise a claim construction dispute earlier in the case. *See Donaldson Co., Inc. v. Baldwin Filters, Inc.*, No. 09-CV-1049 (PJS/AJB), 2011 WL 2183179, at *9 (D. Minn. June 6, 2011). Relatedly, the Court need not construe all terms in the patents at issue. *GPNE Corp.*, 830 F.3d at 1372–73; *O2 Micro*, 521 F.3d at 1360.

The procedural history of this case informs this outcome. Symantec asserts that it did not become aware of the dispute until Columbia "explained for the first time, its interpretation of this phrase in its opening expert report on October 17, 2014," over one month after the first Markman hearing. (Mem. Supp. Markman Mot. 6–7.) Because Columbia reached out to Symantec days later about stipulating to final judgment of non-infringement so as to appeal the Court's claim construction rulings, Symantec maintains that it would have been "ludicrous" for Symantec to raise the dispute regarding the proper construction of "model of function calls for the at least a [part/portion] of the program" at that time. (Reply 12.)

Symantec concedes that it knew of the dispute regarding this phrase prior to stipulating to final judgment. (*See id.*) Yet, Symantec agreed to stipulated final judgment to appeal the Court's Claim Construction Order and Clarified Claim Construction Order without raising this issue. Symantec did not even seek to preserve its argument by notifying the District Court of this dispute. Although the stipulated final judgment did end this aspect of the case in Symantec's favor, nothing precluded Symantec from raising the additional claim construction argument

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the case and, instead, sought to raise the issue in summary judgment briefs. *Apple, Inc. v. Samsung Elecs. Co., Ltd.*, No. 12-CV-00630-LHK, 2014 WL 252045, at *3–*4 (N.D. Cal. Jan. 21, 2014). Relatedly, in *Biovail Laboratories International SRL v. Abrika, LLLP* the United States District Court for the Southern District of Florida declined to consider a party's claim construction argument when the party sought to make the argument soon after a different court construed the term at issue, but months after the deadline for the close of claim construction in the Florida case had passed, because to do so otherwise would lead to "a claim construction process without end." No. 04-61704-CIV-ALTONAGA/Bandstra, 2006 WL 8430149, at *2–*3 (S.D. Fla. Jan. 20, 2006).

before agreeing to stipulated final judgment and nothing guaranteed that Symantec had "won" the case. Far from "ludicrous," (*see id.*), Symantec simply made a tactical decision.

The Court need not construe all terms in the patents at issue, *GPNE Corp.*, 830 F.3d at 1372–73, and Symantec did not timely seek the proper definition for "model of function calls for the at least a [part/portion] of the program." It is likely within the Court's case management authority to deny the request for additional claim construction and, frankly, the Court is inclined to do so.

But the Court pauses because several of the cases in which the district courts refused to construe additional claim terms had reached the summary judgment or trial phase. *See, e.g.*, *Apple, Inc.*, 2014 WL 252045 at *3–4. The Court declines to determine how analogous the Partial Final Judgment Order would be to the finality of a jury verdict or a summary judgment denial. Symantec clearly made a strategic decision when deciding not to pursue a construction of "model of function calls for the at least a [part/portion] of the program" prior to entry of the Partial Final Judgment Order. Parties—especially sophisticated parties—generally face the negative consequences for such strategic choices.

Because Symantec does not suffer ill effects from its earlier failure to raise this claim construction, the Court cautions Symantec and, indeed both Parties, that endless claim construction or requests for reconsideration of finally-decided issues will not be tolerated. This Court's previous scheduling order, and both Parties' desire to move toward trial, will preclude such motions from being entertained. It is largely because the Court feels constrained to grant a Markman hearing on "anomalous," in its effort to resolve "fundamental dispute[s] regarding the scope of a claim term," *O2 Micro*, 521 F.3d at 1362, that the Court will also allow a Markman hearing on the term "model of function calls for the at least a [part/portion] of the program."

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IV. Conclusion

For the foregoing reasons, the Court will grant the Markman Motion as to "anomalous" and as to "model of function calls for the at least a [part/portion] of the program." (ECF No. 204.) The Court also will grant Symantec's Motion to Seal, (ECF No. 206), and Columbia's Motion to Seal, (ECF No. 214).

No later than July 16, 2019, Columbia shall serve on Symantec an updated claim chart, to be comprised of the original information as defined in paragraph 3 of the Court's March 17, 2014 Order while eliminating only the now-excluded claims. (*See* ECF No. 56.) By that same date, Symantec shall serve on Columbia an updated list of the prior art on which it relies, to be comprised of that prior art originally asserted under paragraph 5 of the Court's March 17, 2014 Order while eliminating only the now-excluded prior art. (*See id.*)

No later than July 30, 2019, Symantec shall serve on Columbia a similarly updated claim chart as defined in paragraph 4 of the Court's March 17, 2014 Order. (*See id.*) This updated claim chart shall include the original information exchanged minus the now-excluded information. Also, no later than July 30, 2019, Columbia shall serve on Symantec a similarly updated prior art statement as defined in paragraph 6 of the Court's March 17, 2014. (*See id.*) This updated prior art statement shall include the information originally exchanged minus responses to the now-excluded prior art. (*See id.*)

No later than July 31, 2019, the Parties shall file a joint statement with the Court confirming their compliance with the specified deadlines.

An appropriate order shall issue.

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/s/
M. Hannah Lauck
United States District Judge

Date: 7/2/2019
Richmond, Virginia